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OFFICE OF CIVIL AVIATION SECURITY 26 OCT 82

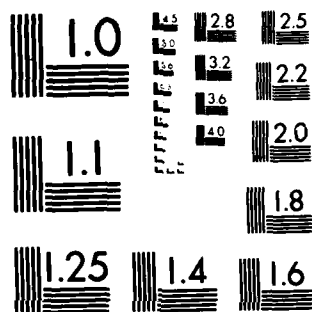
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U.S. Department
of Transportation
Federal Aviation
Administration

Semiannual Report to Congress on the Effectiveness of the Civil Aviation Security Program

January 1 - June 30, 1982

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Washington, D.C. 20591

October 1982

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Report of the Administrator
of the Federal Aviation Administration
to the United States Congress
pursuant to Section 315 (a)
of the Federal Aviation Act
of 1958

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16. Abstract The report includes an analysis of the current threat against civil aviation along with information regarding hijacking attempts, security incidents, bomb threats, and passenger screening activity. It also summarizes ongoing activities to assure adequate protection of civil air commerce against hijacking/sabotage and related crimes, and other aspects of the Civil Aviation Security Program.			
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U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

October 26, 1982

The Honorable George Bush
President of the Senate
Washington, D.C. 20510

Dear Mr. President:

Enclosed is the Federal Aviation Administration's Semiannual Report to Congress on the Effectiveness of the Civil Aviation Security Program. It covers the period January 1 through June 30, 1982, and is submitted in accordance with section 315(a) of the Federal Aviation Act.

There were five U.S. scheduled air carrier aircraft hijackings during the first half of 1982 and a total of seven through August 1982. The seven equals the total number experienced in all of 1981. Three of these seven hijackings were successful and ended in Cuba. During each of the hijackings to Cuba since mid-August 1980, the hijackers threatened to set the aircraft on fire by igniting the real or alleged flammable liquids which they had in their possession. To deter future hijackings of this type, heightened security measures have been instituted in most threatened areas and international consultations have been initiated.

There were 12 hijackings of foreign air carrier aircraft during the January-June period. Of these hijackings 75 percent occurred aboard aircraft which were on domestic flights. We continue to encourage foreign aviation officials to initiate effective screening procedures at all airports servicing both domestic and international flights of air carriers.

The Third International Civil Aviation Security Conference was held in Washington, D.C., in July. This very successful conference brought together representatives from over 60 countries and focused on aviation hijack/sabotage experience, adequacy of security measures in use, research in explosive detection, and incident management concepts.

The enclosed report has also been sent to the Speaker of the House of Representatives.

Sincerely,

J. Lynn Helms
Administrator

Enclosure



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U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

October 26, 1982

The Honorable Thomas P. O'Neill, Jr.
Speaker of the House of Representatives
Washington, D.C. 20515

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I. EXECUTIVE HIGHLIGHTS

1. THIS REPORT COVERS THE PERIOD JANUARY-JUNE 1982.
2. U.S. SECURITY REQUIREMENTS COVER 183 U.S. AND FOREIGN AIRLINES OPERATING OVER 14,600 FLIGHTS DAILY FROM ABOUT 630 U.S. AND FOREIGN AIRPORTS.
3. OVER 319 MILLION PERSONS WERE PROCESSED THROUGH U.S. PASSENGER CHECKPOINTS. OVER 1280 FIREARMS WERE DETECTED WITH OVER 650 RELATED ARRESTS.
4. WORLDWIDE, 17 HIJACKINGS OCCURRED (10 SUCCESSFUL) AGAINST SCHEDULED AIR CARRIERS. FIVE WERE AGAINST U.S. AIRLINES (2 SUCCESSFUL).
5. OF THE 12 FOREIGN AIR CARRIER HIJACKINGS 9 OCCURRED ON DOMESTIC FLIGHTS.
6. THERE WAS 1 U.S. GENERAL AVIATION AIRCRAFT SUCCESSFULLY HIJACKED IN JANUARY, THE FIRST SINCE JANUARY 1981.
7. REAL OR CLAIMED FLAMMABLE LIQUID WAS USED AS A WEAPON IN EVERY U.S. AIRCRAFT HIJACKED TO CUBA SINCE MID-AUGUST 1980.
8. CIVIL AVIATION REMAINS VULNERABLE TO TERRORIST ACTS. AREAS OF GREATEST DANGER ARE EUROPE, THE MIDDLE EAST, AND CENTRAL AMERICA. IN THE U.S., ANTI-CASTRO, AND PUERTO RICAN NATIONALIST GROUPS CONTINUE TO POSE A THREAT.
9. BOMB THREATS AGAINST AIRCRAFT AND AIRPORTS TOTALED 583. THIS IS LESS THAN IN ANY HALF-YEAR PERIOD SINCE 1971.
10. WORLDWIDE CRIMINAL ACTS AGAINST CIVIL AVIATION INCLUDED 18 HIJACKINGS, 14 EXPLOSIONS, AND 7 EXPLOSIVE DEVICES DISCOVERED.

11. CRIMINAL ACTS AGAINST CIVIL AVIATION CAUSED 4 DEATHS AND 15 INJURIES. (2 INJURIES IN THE U.S.)
12. DURING THE FIRST HALF OF 1982, ALLEGED SECURITY VIOLATIONS BY AIR CARRIERS, AIRPORTS, AND INDIVIDUALS TOTALED 1,599.
13. OF THE 1,599 ALLEGED SECURITY VIOLATIONS, 99 RESULTED IN CIVIL PENALTIES TOTALING \$29,463.
14. PRINCIPAL GOVERNMENT/INDUSTRY ACTIONS DURING THE REPORTING PERIOD INCLUDED:
 - A. A STANDARD COMMUTER, AIR TAXI, AND CORPORATE AVIATION ANTIHIJACK TRAINING PROGRAM WAS PRODUCED AND ISSUED.
 - B. AN INDUSTRY/FAA WORKING GROUP REFINED AIR CARRIER SECURITY PROCEDURES AND AIRPORT LAW ENFORCEMENT REQUIREMENTS.
 - C. ALTERNATIVE LAW ENFORCEMENT RESPONSE PROCEDURES WERE APPROVED FOR MORE THAN 200 AIRPORTS.
 - D. TESTING WAS BEGUN ON A NEW COMPUTER PROGRAM FOR THE X-RAY ABSORPTION SYSTEM DEVELOPED TO DETECT BOMBS IN CHECKED BAGGAGE. THIS SYSTEM IS THE FIRST AVAILABLE ANYWHERE IN THE WORLD.
 - E. OTHER RESEARCH AND DEVELOPMENT PROJECTS TO IMPROVE EXPLOSIVE DETECTION CAPABILITIES WERE CONDUCTED ON SCHEDULE.

II. INTRODUCTION

This is the 16th Semiannual Report to Congress on the Effectiveness of the U.S. Civil Aviation Security Program. It covers the period January 1 - June 30, 1982, and is submitted in accordance with section 315(a) of the Federal Aviation Act.

III. U.S. AIRCRAFT HIJACKINGS

Federal Aviation Regulations (FAR) Part 108, Airplane Operator Security, which became effective September 11, 1981, defines a "certificate holder" as a person holding a Federal Aviation Administration (FAA) operating certificate when that person engages in scheduled passenger or public charter passenger operations or both. Beginning with the effective date of FAR Part 108, for the purpose of differentiating between air carrier and general aviation aircraft hijackings, all hijackings of certificate holder aircraft will be considered air carrier hijackings.

There were five U.S. scheduled air carrier hijackings during the first half of 1982. Two of these hijackings were successful and ended in Cuba. These were perpetrated by Cuban males utilizing bottles of flammable liquid as their weapons. In every successful hijacking of aircraft to Cuba since August 13, 1980, the hijackers threatened to set the aircraft on fire by igniting real or alleged flammable liquids which they had in their possession. This growing use of flammable liquid as a weapon to coerce aircraft crewmembers into complying with the demands of hijackers is a matter of concern. It clearly indicates the need for continuing review of passenger screening procedures and constant vigilance at screening checkpoints.

There was one U.S. general aviation aircraft successfully hijacked. This occurred January 8 and was the first U.S. general aviation aircraft hijacked since January 25, 1981, almost a full year.

The following is a brief summary of the one U.S. general aviation and five U.S. scheduled air carrier aircraft hijackings which occurred during this reporting period:

(See Exhibits 1, 2, and 3.)

- o January 8 - Two teenaged boys engaged Bomar Flying Service, Shelbyville, Tennessee, to take them on a sightseeing flight in a Piper PA-28-161 aircraft. During the flight, one of the boys pointed a pistol at the pilot's head and announced that they were taking over the aircraft. The pilot started to resist but the boy holding the weapon began to act in a violent manner. The pilot then complied with their demands and landed at Eagleville, Tennessee. When they deplaned, the hijackers beat and shot the pilot and then tied him to a fixed object. The two boys were joined by a third and, with one acting as the pilot, the three departed in the aircraft. They flew to a field near Wynne, Arkansas, where they were forced to land due to lack of fuel. Upon landing they were apprehended by police. They have been charged with robbery, kidnapping, and attempted murder.

- o February 2 - Shortly after an Air Florida B-737 aircraft departed Miami enroute to Key West, Florida, a male passenger went to the rear galley area. He showed a flight attendant a plastic bottle containing a liquid which smelled like gasoline and a cigarette lighter. He demanded to be flown to Cuba. The pilot was notified and the aircraft was flown to Havana where the hijacker was taken into custody by Cuban authorities.
- o February 13 - A lone male opened an alarmed door leading from the terminal to the air operations area at the Amarillo Texas Airport. He boarded an out-of-service Braniff International B-727 aircraft and was challenged by a maintenance man who was the only other person on board. He threatened to injure the maintenance man, indicated he was hijacking the aircraft, and demanded a pilot to fly the plane. The maintenance man deplaned and secured the assistance of a Braniff International senior agent. The hijacker, meanwhile, went into the cockpit and locked the door. The senior agent boarded and tried without success to convince the hijacker to get off. Law enforcement and airport officials were notified and responded. After a period of negotiations, the hijacker surrendered to the law enforcement officers. Search of the hijacker and the aircraft failed to reveal any weapons.
- o March 1 - About 30 minutes prior to the arrival of a United Air Lines B-727 aircraft at Miami, Florida, on a flight from Chicago, Illinois, a man summoned a flight attendant. Using another Spanish-speaking passenger as interpreter, he told the flight attendant that he wanted to go to Cuba, that his mother had died in Cuba the day before, and that he had a bomb. The hijacker held a small bottle containing a liquid and a cigarette lighter. He shouted "Cuba" several times and indicated that unless his demand was met he would start a fire. The pilot when advised of the situation announced that they would fly to Cuba. He actually landed the plane in Miami. When the hijacker became aware that they had not landed in Cuba, he ran up and down the aisle flicking his lighter and shouting "Cuba" several times. Another male passenger attacked the hijacker and with the assistance of some of the crew and other passengers overpowered him. The police boarded and took the hijacker into custody. He has been charged with aircraft piracy and interference with a crewmember.
- o April 5 - As a Delta Air Lines B-727 aircraft was flying from Chicago, Illinois, toward Miami, Florida, three men demanded to be flown to Cuba and threatened to set the aircraft on fire if their demands were not met. One man in the front of the aircraft and one in the rear proceeded to pour gasoline from plastic containers on the floor. A third man who appeared to be the leader of the group made several trips between the front and rear of the plane. A flight attendant told the man in the rear to stop pouring the gasoline; whereupon, he splashed some on her face and body causing injury to both eyes. During the flight to Cuba, the hijacker periodically poured additional gasoline on the aircraft's floor and seats. They did not, however, light their cigarette lighters. Upon landing at Havana, Cuban officials boarded and took the hijackers into custody.

- o June 23 - During the late evening, a Henson Airlines (Allegheny Commuter) DHC-7 aircraft arrived at Shenandoah Valley Airport, Staunton, Virginia. After the passengers and some of the crew had deplaned, the copilot deplaned and walked toward the front of the aircraft where he was confronted by a woman. The woman said she was hijacking the plane, that she wanted to be flown out of the area, and that she had a weapon. She refused to show the weapon. The copilot reboarded the aircraft and the woman followed. He notified a passenger agent who was aboard that the aircraft was being hijacked. He then entered the cockpit and locked the door. The woman pounded on the door attempting to gain entrance and threatening to blow the door off its hinges. The copilot notified Henson Airlines personnel in the terminal by radio that the aircraft was being hijacked. He then exited the aircraft via a cockpit window. As a flight attendant left the aircraft, the hijacker grabbed her by the belt and followed her off. The woman told the flight attendant that she wanted a pilot to get back on the plane. After they entered the terminal, the aircraft's pilot separated the two women. Subsequently, the hijacker left the terminal and was apprehended later by police near the terminal. She has been charged with interference with a crewmember.

In addition to compiling records and reporting on actual hijackings, the FAA has attempted to identify, record, and report incidents in which it appeared that individuals intended to hijack an aircraft or commit other crimes against civil aviation but were prevented from doing so by airline and airport security measures in effect. As noted elsewhere in this report, 1,286 firearms were detected at screening points under suspicious circumstances during this reporting period. In some of these instances, the persons carrying the firearms may have intended to hijack an aircraft; however, sufficient additional data were not developed to fully support this determination. While the number of incidents wherein the perpetrator of an action intended to commit a crime against civil aviation cannot be determined with certainty, there were 3 incidents where the facts tend to support that possibility during the first half of 1982. This raises the number of hijackings or related crimes believed prevented since 1973 to 101. The following is a brief summary of each of the 3 incidents:

(See Exhibit 4.)

- o February 16 - A man who was identified as a potential threat was processed and subsequently given a patdown search by airline personnel in the jetway leading to a B-737 aircraft which was boarding passengers. A flight attendant was notified and closed the door to the aircraft pending completion of the search. During the search, the man was found to be carrying a small handgun. When it was discovered, the man drew the weapon and fired at the two searchers. They fled from the jetway uninjured. The police responded and an exchange of gunfire ensued. Shortly thereafter, the man walked from the jetway into the gate area, was taken into custody, and, during interview, indicated that he had intended to hijack the aircraft. He was sentenced to concurrent terms of imprisonment for life, 25 years, and 15 years for attempted murder, felony with a firearm, and resisting arrest.

- o April 2 - An airline employee observed a man in the ramp area of the airport and challenged him. The man could not explain his presence in the restricted area and had no authorization to be there. When he was turned over to the local police, he claimed that he had been allowed on to the ramp by an airline captain in order to look for a briefcase he had misplaced. This claim could not be substantiated. He was found to be carrying a number of photos of aircraft taken at the airport and expressed a desire to return to Pakistan. A check of police records revealed that the man was wanted on an outstanding felony grand theft warrant. He was placed into confinement on the grand theft charge. On May 18 the charge was changed to petty theft; whereupon, he was given credit for the time served in jail and released on 3 years probation.
- o May 23 - A man drove an automobile through an airport perimeter fence and continued via a taxiway and runway to the transient aircraft parking area. He then left the automobile and unsuccessfully attempted to open the door and enter a cargo air carrier's jet aircraft. He then drove to a scheduled air carrier B-737 aircraft which was at a terminal gate preparing for a flight. He parked near the aircraft and proceeded up the outside stairs of the jetway. He was intercepted when he attempted to enter the jetway and restrained by airline personnel. At the time he was restrained, he had in his hand a straight razor blade about 3 inches long which was taped to a business card. He told the airline personnel he had to get aboard the aircraft immediately and that he did not need a ticket because he was going to fly the plane. During interview by police he made several irrational statements, claimed that he had attempted suicide in the past, and that he wanted to take a plane to Zurich, Switzerland, to see his mother. He was transported to and accepted by the Psychiatric Ward of the County hospital.

IV. FOREIGN HIJACKINGS

Between January 1 and June 30, 1982, there were 12 foreign aircraft hijackings. This represents a 25 percent decrease from the number of hijackings which occurred in the second half of 1981. While this represents an encouraging period-to-period reduction, it is still a significant number of hijackings for a half-year period. With the exception of the second half of 1981, the 12 hijackings in this reporting period are more than in any half-year period since June 1978. All of these 12 foreign air carrier hijackings were against scheduled carrier operations, and 9 occurred while the aircraft were on domestic flights within the countries of registry. Eight of the 12 hijackings were successful. In 6 of the hijackings, the hijackers were known to be have had real firearms. In 5 of these 6 cases, available information indicates that the weapons were introduced through the normal passenger boarding process and should have been intercepted by an efficient passenger and carry-on baggage screening system.

(See Exhibit 2.)

V. AIRCRAFT/AIRPORT SABOTAGE

Five significant incidents involving actual explosive or incendiary devices affecting aircraft or airports occurred in the United States during the reporting period. These incidents are summarized below:

(See Exhibit 7.)

- o February 25 - A pipe bomb exploded under a truck parked in the employee parking lot at Lindberg Field, San Diego, California. The truck and a nearby automobile were damaged. The bombing apparently was the work of an extortionist who made several telephone calls to the United Air Lines offices at the airport. In calls made after the explosion, the extortionist threatened to explode another device if his demand for \$7 million was not paid. Search of the area revealed no other bomb, and no telephone calls were received from the extortionist after February 25.
- o March 2 - Upon arrival at Sheppard Air Force Base, Texas, a U.S. Air Force enlisted woman reported to the military police that she had found an explosive device in her baggage. Earlier in the day, the baggage had been checked aboard the aircraft which brought her to Wichita Falls, Texas. The woman had flown aboard a Braniff International B-727 aircraft from National Airport, Washington, D.C., to Dallas/Fort Worth Regional Airport, Fort Worth, Texas, and then to Wichita Falls aboard a Metro Airlines Shorts 330 aircraft. She traveled by bus from Wichita Falls to Sheppard. The suitcase in which the bomb was found had been checked through from Washington, D.C. to Wichita Falls. The bomb was packaged in a metal canister and included plastic explosives, black powder, blasting devices, and other material necessary to make it capable of detonation. The woman's husband, also a member of the U.S. Air Force, was arrested and charged with the willful placing of a destructive device aboard an aircraft and the transportation of an explosive.
- o April 3 - A live military handgrenade simulator was discovered in a trash receptacle in a women's restroom at the international arrivals area in Hartsfield Atlanta International Airport, Atlanta, Georgia. An explosive ordnance technician of the Atlanta Police Department safely removed the device.
- o April 26 - A police officer noticed what appeared to be a bomb in an ashtray at the Stapleton International Airport, Denver, Colorado. The device was in the shape of a small ball constructed of a black putty-like substance with dark green wire protruding out and wrapped around the putty. The device was safely removed and examined. The wire was determined to be a fuse. The putty and two cylinders of a hard substance found within the putty were highly volatile. All parts burned profusely when ignited.
- o June 20 - A percussion-type homemade pipe bomb was found in a trash receptacle near the Western Airlines ticket counter in the terminal of the International Airport at Ontario, California. The device was a metal pipe, 4 inches by 2 inches, with pipe caps covering each end. One cap had been drilled and had a percussion primer inserted in the hole as an initiator.

VI. BOMB THREATS

There were 583 threats to use explosives against aircraft or airports during the reporting period. This represents a decrease of about 5 percent from the 614 threats reported in the second half of 1981 and approximately 33 percent decrease from the number received during the first half of 1981. This is the smallest total number of bomb threats recorded during any 6-month period since 1971.

Of the 583 threats, 461 were against aircraft which is 5 percent less than the 484 threats received in the last 6 months of 1981. This is the smallest number of bomb threats against aircraft received during any 6-month period since 1970. Of the 461 threats, 309 were considered serious as defined in Exhibit 5. Telephone threats accounted for 247 (80 percent) of the serious threats. The remaining 62 (20 percent) were made in writing or verbally or were the result of locating suspect devices at various airport locations. These serious threats caused at least 159 searches to be conducted and at least 98 flight delays or diversions. There were a total of 30 U.S. airlines and 25 foreign airlines involved in the serious bomb threats. In 9 cases, the threats were accompanied by extortion demands.

The 122 bomb threats made against airports resulted in at least 94 searches and 17 evacuations. Telephone threats accounted for 78 (64 percent) of the total. Three of the threats were considered extortion attempts. Since, in the great majority of bomb threats against airports, the specific airport is in some way identified, all such threats are considered serious.

(See Exhibits 5, 6, and 7.)

VII. CURRENT THREAT ESTIMATE

Aircraft hijackings and sabotage continue to threaten the lives and property of persons traveling in civil air commerce. The high number of hijackings during this reporting period indicates that the hijack threat persists and that effective and continuing civil aviation security measures remain necessary.

A total of 17 air carrier aircraft hijackings, 10 of which were successful, occurred worldwide during January - June 1982. This large number of hijackings for a 6-month period is at almost the same high rate as that established during the last 6 months of 1981 when 19 air carrier aircraft hijackings occurred, 10 of which were successful. If this rate of hijackings continues during the remainder of 1982, the yearly total will be greater than the 29 hijackings that occurred in 1981, which was the third highest total since 1972.

Acts of terrorism continued to pose a threat to civil aviation throughout the world. The greatest danger remains in Europe, the Middle East, and Central America. Various terrorist groups in these areas, such as the Popular Front for the Liberation of Palestine; the Japanese Red Army; the West German Red Army Faction; the Italian Red Brigade; the Spanish Basque Separatist; and the Armenian terrorist groups continued to maintain links, loose association, and some measure of mutual cooperation and assistance. These ties have enhanced and

increased the capabilities of these organizations to carry out terrorist acts against international targets.

Palestinian terrorist groups and the Japanese Red Army have not been active against civil aviation during the past few years. As these organizations continue to have the potential to carry out terrorist acts, they remain a concern and a threat. Reportedly, the frustrations and losses experienced by Palestinian forces and their inability to stop the Israeli invasion into Lebanon may cause Palestinian individuals or groups to turn to aircraft hijacking and sabotage as a means of retaliation. These terrorist acts would not only be against Israeli targets but against U.S. targets, because the United States is perceived as the patron of Israel and responsible for its actions. Unless a satisfactory solution is found for the Palestinian problem, it is anticipated that radical Palestinian groups may revert to conducting anti-U.S. terrorist acts worldwide (to include hijacking and sabotage) in a manner reminiscent of the early 1970's.

Demonstrations in West Germany against nuclear proliferation, U.S. involvement in El Salvador, and the new runway at the Frankfurt International Airport continued during the reporting period. Reportedly, the Red Army Faction and the Revolutionary Cell openly supported these issues and demonstrations. In Italy and Turkey, the continued success of counterterrorist operations kept terrorist activities at a low level. Only symbolic acts of violence were committed in these countries during this reporting period.

The Spanish Basque Separatist (Fatherland and Liberty) (ETA), after a lull in activities, renewed their campaign of terrorism with attacks against the police, the military, and bombings of Spain's nationalized utility company's installations. A terrorist organization which reportedly is making a comeback is the Spanish organization called the First of October Antifascist Resistance Group (GRAPO). Spanish authorities believe GRAPO to be more vicious than ETA with respect to their willingness to undertake wanton murder of innocent individuals. GRAPO is strongly anti-U.S. and advocates the removal of U.S. military bases from Spanish territory.

During the latter part of the reporting period, the threat to U.S. facilities and establishments overseas increased considerably. Several acts of violence preceded the visit of the President of the United States to Europe in early June and several occurred as a result of the invasion of Lebanon by Israeli forces. Numerous anti-U.S./Israeli demonstrations, bombings, and other violent acts were staged at U.S. Embassies, U.S. affiliated commercial companies, and U.S. military facilities in France, Italy, West Germany, and at various other locations throughout the world.

In Central America, guerrillas and terrorists continued their kidnapping, assassination, and bombing activities at a somewhat increased level. In Nicaragua, a bomb detonated in a suitcase that had just been removed from a Honduran Airline flight. The suitcase was sitting on a trailer outside the terminal near a conveyor belt when it exploded, killing three baggage handlers and injuring four others. A Nicaraguan airline aircraft on a domestic flight was successfully hijacked by two men who asked for political asylum in Costa Rica. In Honduras, a domestic flight was successfully hijacked by members of a terrorist group called Commando Lempira, which demanded the release of

political prisoners, \$500,000, publication of a political statement, and fuel. In addition, bombs exploded at 3 embassies and at a Coca Cola subsidiary facility in Honduras. The terrorist group called Lorenzo Zelaya Popular Revolutionary Forces claimed responsibility for the bombings at the embassies and the Juan Rayo Guerrilla Group claimed responsibility for the bombings at the Coca Cola facility. In Guatemala, bombings took place at diplomatic facilities, and 2 U.S. connected restaurants (Hardee's and McDonald's) were burned. The terrorist organization called The Popular Front of January 31 claimed responsibility for the attack against the McDonald's franchise. The U.S. Embassy in Guatemala City was attacked with a RPG rocket and submachinegun fire. The Guerrilla Army of the Poor claimed responsibility for the attack. A U.S. missionary in Guatemala was killed by unidentified hooded assassins in a speeding car. Finally, in Guatemala, members of the Popular Front of January 31 seized the Brazilian Embassy. They denounced the Guatemalan Government and later requested and were granted political asylum in Mexico.

In South America, terrorist violence, in the form of hijackings and bombings, continued on a somewhat increased level. Three aircraft of Colombian airlines were hijacked while on domestic flights (1 successful, 2 unsuccessful). One aircraft was unsuccessfully hijacked by a lone Latin male armed with a bottle of gasoline and a stick of dynamite. He demanded to be flown to Aruba and the release of his brother who is in prison for having hijacked an aircraft in May 1978. The hijacker was knocked down and overpowered by passengers. The second aircraft was hijacked shortly after departing Bogota by eight members (including one woman) of the Colombian Guerrilla Group, M-19, armed with pistols and explosive devices. They demanded to talk to a journalist and a member of the commission negotiating an end to guerrilla activity. They also demanded flight to Cuba where they reportedly surrendered to the authorities. The other unsuccessful hijacking occurred when a hijacker entered the cockpit and demanded to be flown to Cuba claiming to have a bomb aboard the aircraft. The copilot struggled with the hijacker and overpowered him with the help of some of the passengers. Four bombings occurred and one explosive device was found in South America during this reporting period. An explosion occurred under a Colombian aircraft in Colombia while it was being prepared for flight, killing one person and injuring 4 others. Two U.S. consulate's, one in Ecuador and one in Bolivia were bombed causing extensive property damage but no injuries. In Colombia a Honduran consulate and the El Salvador Embassy were machinegunned and bombed by the terrorist group called the National Liberation Army and by the M-19 group, respectively. Additionally, in Colombia, a bomb was discovered next to the wall which surrounds a U.S. Consul's residence.

In the Far East, terrorist violence continued at a low level. One unsuccessful hijacking of a Philippine Airline domestic flight and a successful hijacking of an Alitalia flight from India occurred during the reporting period. A number of demonstrations occurred in Japan protesting the planned expansion at Narita Airport. One of the demonstrations took place on March 26, the fourth anniversary of the seizure of the airport's control tower by radicals in 1978. Radicals occupied the tower at that time and destroyed air traffic control equipment, forcing the postponement of the airport's opening by almost 2 months. An explosion occurred at the airport at Karachi, Pakistan, near the point where the Prime Minister of Malta was scheduled to get into an automobile after his arrival at the airport. Fortunately, the Prime Minister was 3 hours late.

In the United States, anti-Castro groups and Puerto Rican separatists continue to pose a threat to civil aviation. Despite the low amount of activity by the Armed Forces of Puerto Rican National Liberation (FALN), this Puerto Rican separatist group has recovered from a series of arrests in 1981 and is believed to be "back in business." In February, 4 explosions at banking and financial institutions in New York City with responsibility claimed by the FALN, are evidence that this terrorist group is active again. Since 1970, this U.S.-based Puerto Rican Group has killed 5 people and injured some 200 others. The last bombings attributed to the FALN were in 1980 when 11 key members were arrested.

In Puerto Rico, Puerto Rican separatists are believed to have carried out 5 virtually simultaneous bombings and shooting attacks on economic and government targets, with \$500,000 damage caused to an electrical substation. The attacks were a protest against the expulsion of squatters from public land. In addition, the Macheteros, the most violent of Puerto Rican separatist groups, attacked 4 U.S. Naval personnel on leave in San Juan killing one and wounding three. The attack reportedly was in retaliation for the exploitation of Puerto Rican resources and against the "concentration camp" for the Haitians in Puerto Rico. The Macheteros is the terrorist group that carried out an attack against U.S. Naval personnel in 1979 when 2 sailors were killed and 10 wounded. They also attacked the Puerto Rican Air National Guard base collocated with the San Juan International Airport in January 1981, destroying and damaging 10 jet aircraft valued at \$45 million. Omega 7, an organization in the United States, which is vehemently opposed to the Fidel Castro regime in Cuba claimed credit for five terrorist incidents involving bombings or machinegun attacks against Cuban exile firms in the Miami, Florida, area. One cigar factory and a pharmacy were bombed with the pharmacy having its windows shot out. Another pharmacy was raked with machinegun fire. Two bombs were found, one at a freight forwarding company (which handles shipments to Cuba) and the other was found at a Spanish language publication office. Reportedly, the pharmacies, located in the "little Havana" area of Miami, Florida, are owned by Cuban exiles. The Spanish language publication advocates U.S.-Cuban trade. The cigar factory owner took part in negotiations with Castro which resulted in the release of more than 3,000 political prisoners in 1978.

The refugees who came to the United States by boat during the mass exodus from Cuba in 1980 continue to pose a threat to civil aviation. Of the 5 U.S. air carrier hijackings that occurred during this reporting period, two successful hijackings were directed to Cuba. In both hijackings, the hijackers used what was believed to be a flammable liquid and cigarette lighters. On one flight, the hijackers poured gasoline on the floors and splashed some on a flight attendant injuring her eyes.

Armenian terrorists in the United States continued their campaign against Turkish diplomats and civil aviation. The Turkish Consul General to Los Angeles, California, and the Honorary Turkish Consul to Boston were shot to death in January and in May, respectively. The Turkish Consulate in Cambridge, Massachusetts, was bombed in March and 3 Armenian males were arrested after placing a bomb at the office of Air Canada's cargo facility in Los Angeles. The Justice Commandos of the Armenian Genocide (JCAG) claimed responsibility for

the assassinations and bombing. The 3 Armenians arrested for the attempted bombing of the Air Canada cargo facility are members of the Armenian Secret Army for the Liberation of Armenia (ASALA). Authorities believe the attempted bombing at Air Canada was in retaliation for the arrest of Armenians for attempted extortion in Canada 2 weeks earlier. In the past, Armenian terrorists have launched an intensive worldwide bombing campaign against diplomatic and commercial interests of those countries which have detained or tried one of their "Commandos."

One of the many factors that contributes to the success of a bombing campaign or other acts of terrorism is the ability of terrorists to choose the time, place and target. Armenian terrorists have the capability to strike whenever they are ready, particularly in areas of large Armenian population such as Boston, New York, Chicago, and Los Angeles. Reportedly, ASALA has escalated its tactical operations to that reminiscent of Palestinian type terrorism. These Armenian terrorists have carried out several spectacular operations such as an Embassy seizure and an attack on a well-protected official. It is believed these acts could forebode an increase in level and sophistication of their operations.

Other organizations of concern in the United States are the Croatian and Serbian groups in their struggle against the Yugoslavian regime; however, there has been no activity or threats against civil aviation by these groups during the past 2 years. A militant group that has been active during the reporting period has been the Jewish Defense League. In anonymous telephone calls, alleged members of this organization claimed responsibility for explosions at the Aeroflot (Soviet Airlines) ticket office in Washington, D.C., and at the Lufthansa (German Airlines) ticket office in New York City.

While the threat of hijacking persists, sabotage and other criminal acts continue to pose a serious threat to civil aviation. A total of 42 criminal acts occurred from January through June 1982 resulting in 4 deaths and 15 injuries (2 injuries occurring during U.S. hijackings). Eighteen of these incidents were aircraft hijackings (17 air carriers plus 1 general aviation), 4 of which were committed by members of groups considered to be terrorist organizations; 14 incidents were explosions (4 at airports and 10 at airline offices) with 5 of these incidents considered to be terrorist actions; 7 involved live or hoax explosive devices found (4 at airports, 2 at airline facilities and 1 aboard an air carrier aircraft), 2 of which were placed by terrorists; and 3 other incidents involved criminal acts against civil aviation.

Since 1974, worldwide criminal acts against civil aviation have resulted in 715 deaths and 868 injuries with 118 deaths and 142 injuries involving U.S. civil aviation.

(See Exhibits 1, 2, 3, 7, and 8.)

VIII. PASSENGER SCREENING

Since the U.S. passenger screening program was initiated in January 1973, there have been 69 air carrier aircraft hijackings. This is approximately 7 per year and is about one-fourth of the average of 27 per year experienced in the 5 years immediately preceding the beginning of the program, a dramatic improvement!

The prime objective of passenger screening activities centers specifically on the detection of firearms and explosives or incendiary devices which are considered to present the greatest threat to civil aviation security. The FAA's analysis of screening checkpoint activity includes the recording and study of the number of firearms and explosive or incendiary devices detected, false threats received, and certain other offenses detected, as well as related information received concerning arrests and disposition of cases. Results of U.S. screening activities for the first 6 months of 1982 are detailed below.

There were over 319 million persons processed through screening checkpoints at 365 airports during the first half of 1982. A total of 1,286 firearms were detected: 1,190 (92 percent) through X-ray inspection, 60 (5 percent) by metal detection devices, and 36 (3 percent) by physical search. This total is approximately 21 percent higher than the average of 1,062 firearms detected during the preceding 8 reporting periods, and 32 percent higher than the total of 971 firearms detected during the first half of 1981. Comparing the total persons screened and weapons detected during this reporting period with the average persons screened (294 million) and the average weapons detected (1,062) for the preceding 8 reporting periods, it is interesting to note that persons screened increased 8 percent and weapons detected increased 21 percent. No explosives or incendiary devices were detected during this period contrasted with the average of 3 detected during the preceding 8 reporting periods.

Persons arrested at screening points for the carriage of firearms totaled 651. This is an increase of 129 (about 25 percent) over the average of 522 arrests for the preceding 8 reporting periods, and an increase of 117 (about 22 percent) over the 534 arrests which occurred during the first half of 1981. The 651 arrests involved some 35 U.S. airlines at 92 U.S. airports.

In order to obtain more meaningful statistics and to analyze screening activities more realistically, the airports are categorized according to the number of persons screened per year, as follows: Category I - 2 million and above, Category II - 500,000 to 2 million, and Category III - under 500,000. Of the 651 arrests, 450 (69 percent) occurred at 41 Category I airports (e.g., Atlanta, Georgia, and Los Angeles, California); 171 (26 percent) occurred at 37 Category II airports (e.g., Buffalo, New York, and Shreveport, Louisiana); and 30 (5 percent) occurred at 14 Category III airports (e.g., South Bend, Indiana, and Lincoln, Nebraska).

In 131 (20 percent) of the 651 arrests, the individuals involved were fined, placed in confinement, and/or placed on probation; in 71 (11 percent) of the cases, charges were dropped or dismissed, making a total of 202 cases settled. In the remaining 449 arrests (69 percent), action is still pending. Of the 202 cases which have been settled, 65 percent (the 131 cases cited above) have resulted in fines, confinement, or other disciplinary action. In addition to these criminal actions, FAA may take civil aviation against individuals who, without proper authorization attempt to carry a firearm or explosive/incendiary device through screening checkpoints. During this reporting period, 1,369 investigations of individuals were completed and \$18,355 in civil penalties collected.

(See Exhibits 1, 9, and 17.)

At screening checkpoints the equipment primarily used to carry out the screening operation consists of walk-through weapon detection devices and, at the high volume stations, X-ray inspection systems for carry-on articles. There are 946 walk-through weapon detection devices in use and 795 X-ray carry-on article inspection systems. There are also many handheld devices in place to be used as backup support for the walk-through weapon detection devices. Efforts are continuing to improve the current screening equipment and to minimize inconvenience to passengers. Passenger screening at airport departure points is expected and generally accepted by members of the flying public in the interest of aviation safety.

(See Exhibits 10 and 11.)

IX. CIVIL AVIATION SECURITY ACTIONS

The basic policies guiding the operation of the Civil Aviation Security Program follow the concept of shared responsibility involving airlines, airports, local communities, the Federal Government, and the passengers. Each has accepted and carried out the actions assigned in an exemplary manner. This cooperation has contributed significantly to the overall success of the program. The airport and airline security measures involved in this program provide protection for travelers at a level unmatched in any other mode of public transportation. These security measures currently involve 183 U.S. and foreign airlines operating over 14,600 scheduled passenger flights each day to and from about 630 U.S. and foreign airports. These operations have involved the daily processing through the screening system of approximately 1.875 million persons with approximately 1.857 million pieces of carry-on articles.

(See Exhibits 12 and 13.)

Aircraft Security. During the reporting period the most significant actions taken in the area of aircraft security included the development and issuance of a standard antihijack training aid for commuter, air taxi, and corporate aviation; sophistication of air carrier security procedures; and adoption of new and more flexible airport law enforcement response procedures. In addition, claims for compensation by certain U.S. air carriers for nonreimbursed international security costs continued under review. The following is a summary of each of these activities:

- o Commuter, Air Taxi, Corporate Aviation Antihijack Training Aid. A 23-minute audiovisual training aid entitled "A Common Strategy for Commuter, Air Taxi, and Corporate Aircraft Operators" has been completed and sent to each FAA Civil Aviation Security Field Office. The program is to be provided, at no cost, to commuter and air taxi operators who hold FAA-approved security programs and have indicated a need for the training aid. Also, copies will be made available on a loan basis to other air taxi and commuter operators as well as corporate aviation operators.

- o Improved Air Carrier Security and Airport Law Enforcement Procedures. A working group made up of airline, airport, and FAA security officials completed necessary modifications to strengthen the security procedures used by air carriers and to make more flexible airport law enforcement response procedures. The working group is a very effective forum for the identification and preliminary discussion of changes needed in security procedures.
- o Compensation for Required Security Measures in Foreign Air Transportation. Special Federal Aviation Regulation (SFAR) 34, which became effective on August 27, 1980, established procedures for compensating air carriers who incurred nonreimbursed costs for screening passengers and their carry-on baggage moving in foreign air transportation during the period July 1, 1976, through September 30, 1978. The cutoff date for air carrier claims pursuant to the SFAR was June 30, 1981. Four certificate holders have filed claims totaling \$12,114,921. During the reporting period, the Office of Inspector General, Department of Transportation, completed their audit of the claims received. The FAA is currently reviewing recommendations received. The FAA's fiscal year 1982 supplemental request included \$9,945,000 as a prudent limitation for reimbursement.

Airport Security. Airport operators have continued to support and carry out highly efficient security programs at airports utilized by U.S. air carriers. None of the 6 hijackings which occurred in the United States during this reporting period were the result of insufficient or ineffective airport security measures. Significant activities during the first half of 1982 which contributed to the improvement of airport security included the adoption of more flexible law enforcement response procedures, continued training of law enforcement officers and others directly involved in aviation security, and continuation of the explosive detection K-9 team program. These activities are summarized below:

- o Airport Law Enforcement Support Alternatives. Following the recommendations of an FAA/industry working group, airport operators now have three basic alternatives from which to select in order to comply with FAA law enforcement support requirements. The three alternatives are:
 - (1) Have law enforcement officers (LEO's) present at the screening checkpoints during all screening.
 - (2) Have LEO's using overt and covert communications equipment, patrol in the immediate vicinity of the screening checkpoints, in conjunction with increased training of air carrier screening personnel.
 - (3) Have LEO's using overt and covert communications equipment patrol farther away from the screening checkpoints, in conjunction with increased training of air carrier screening personnel.

This option provides more effective use of the LEO's expertise throughout the terminal, airport, or area. The distance LEO's may be away from screening checkpoints is determined by the number of persons screened at each specific airport. Using this option at the larger airports, the air carriers must also have in place a specially trained screening checkpoint security supervisor who is able to handle routine screening checkpoint problems without calling for law enforcement assistance.

Flexible response options for LEO's were approved by the FAA on September 11, 1981. As of the end of June 1982 more than 200 U.S. airports were operating under this new law enforcement support concept.

- o Civil Aviation Security Training. The formal classroom training primarily designed for local law enforcement officers assigned to support airline and airport security programs is conducted at the Transportation Safety Institute in Oklahoma City, Oklahoma. The course provides in-depth coverage of civil aviation security requirements, procedures, and techniques. As of June 30, 1982, a total of 108 classes have been conducted for 2,491 students including 1,771 local law enforcement officers, 352 foreign students, 289 FAA employees, and 79 others, including representatives of other U.S. Government agencies and aviation industry officials. In addition to the formal classes at Oklahoma City, special 2-day seminars, attended by 3,405 persons, have been conducted at 49 airports throughout the nation.
- o Explosive Detection Dog/Handler Teams. On July 1, 1981, the Law Enforcement Assistance Administration terminated their participation in the funding and fiscal management of this program and the FAA assumed this responsibility. Funds from the FAA budget have been reprogramed to support the program temporarily until a more permanent funding source can be established. As of June 30, 1982, legislation to properly fund this program is under consideration in the Aviation Subcommittee of the Public Works and Transportation Committee of the House of Representatives. Contingent upon the availability of funds, an interagency support agreement has been concluded between the U.S. Air Force and the FAA. The U.S. Air Force provides the training and evaluation support and the FAA provides fiscal and operational management. An explosive detection K-9 team consists of one dog, and, as handler, an officer from a police department which supports a participating airport. Teams are positioned so that this emergency support will be available at airports to threatened aircraft flying over the contiguous 48 states of the United States within 30 minutes flying time. A total of 29 airports are capable of providing emergency explosive detection K-9 team support. To date in actual explosive detection missions, the teams have detected 48 explosive items in the course of 6,477 aircraft and airport searches. In addition, they have conducted 6,666 explosive searches in their local communities, detecting 173 additional explosive items.

(See Exhibit 14.)

Research and Development. The FAA has a continuing research and development program which is designed to improve upon existing equipment and to develop effective and efficient techniques and equipment to detect explosives in checked baggage, in air cargo and when carried by individuals. The following is a description of these efforts:

(See Exhibit 15.)

- o X-ray Absorption. Development of an X-ray absorption device represents the culmination of 8 years of research and development and is the first device of its type available anywhere in the world. The concept of X-ray absorption detection of explosives is based on an automatic computer-based analysis of the size, shape, and X-ray density of checked baggage contents. An operational test of this technique demonstrated sufficient detection capability to warrant further development. As a result, two detectors were modified for operational evaluation. One was installed at Dulles International Airport, Washington, D.C., and an operational evaluation involving the processing of over 65,000 pieces of baggage was completed. Although the performance was somewhat less than anticipated, the system demonstrated that it can be effective in the detection of explosive devices in checked baggage. The second operational prototype system was delivered to the FAA Technical Center, Atlantic City, New Jersey, to test advanced computer programming techniques with a view to further improving detection performance. The contractor has delivered a new advanced adoptive algorithm (computer program) to the FAA Technical Center. This algorithm is designed to enhance the detection capability of the system and at the same time reduce false responses. It has been placed in the system at the Technical Center as well as the system at Dulles International Airport for test and evaluation. Limited tests show that with the new algorithm installed the system performs better and the detection capability is enhanced. Beginning in August 1982, a 60 - 90 day evaluation will be initiated at Dulles to compare performance with the results of the earlier operational tests.
- o Thermal Neutron Activation. The technical feasibility of this concept, which involves identification of explosives by means of detecting a nuclear reaction unique to a specific explosive material has been demonstrated. A portable system has been constructed to allow testing at different airports. Thus far, testing has been conducted at Greater Pittsburgh International Airport, Pittsburgh, Pennsylvania, and Logan International Airport, Boston, Massachusetts. Analysis of the test data indicates that the system may be better suited for the processing of air cargo rather than carry-on or checked baggage because of the time required to process each item. Research is continuing to further enhance the detection capability. Documentation and data package of key elements of the system will be shared with the aviation industry.
- o Nuclear Magnetic Resonance. This concept relies on the detection of a characteristic response of explosive molecules when they are subjected to magnetic and pulsed radio frequency fields. After a scale model of the system was constructed and the feasibility of this concept demonstrated,

an airport evaluation to gather research and development data and to determine operating characteristics was conducted in the spring of 1979. An additional evaluation was conducted at Dallas-Fort Worth Regional Airport, Fort Worth, Texas, and analysis of this data showed that the concept is feasible. As a result, the laboratory model is being converted into a system for operational test and evaluation by late 1982.

- o Walk-By Explosive Detector. The Transportation System Center, Department of Transportation, Cambridge, Massachusetts, is developing equipment which will detect explosives being carried by individuals without harming the individuals. Although an unsuccessful attempt was made several years ago to develop a similar system, this new effort is being undertaken in view of the recent improvements in technology with regard to vapor collection and sampling. Success in this area would significantly contribute to the development of a complete explosive detection system covering all methods of placing explosives aboard aircraft. Laboratory evaluation of a prototype device indicates that, to develop an effective device, further improvements in the state-of-the-art sensor devices are required in the area of vapor collection and sampling. In this regard, an FAA request for proposal is expected to be issued in late 1982 in an effort to determine if industry can produce a detector which meets more stringent FAA specifications.
- o Symposium on Controlled Access Screening for Airport Security Areas. To explore the state-of-the-art and advancements in airport screening and detection equipment, the Committee on Security Systems of the American Society for Testing and Materials (ASTM) sponsored a 1-day symposium in April. Over 75 experts in the field attended the meeting in Philadelphia, Pennsylvania. The FAA has actively participated in the activities of this committee and chairs a subcommittee on Controlled Access Security Search and Screening Equipment. One of the task groups of this subcommittee is developing a proposed standard practice for the design and use of ionizing radiation equipment used in the detection of items which are prohibited in controlled access areas. This standard is expected to be adopted by ASTM by the end of 1982.

International Activities. Considerable progress has been made in securing the active participation of the world community in programs designed to curtail criminal acts against civil aviation. In response to the standards and recommended practices established by the International Civil Aviation Organization, most countries today have instituted civil aviation security programs which have met with varying degrees of success. It is widely recognized that improvement in the program of one country is an improvement for civil aviation security worldwide. This understanding has brought about a cooperative attitude among nations and international organizations which has resulted in a number of international joint activities designed to bring about program improvements. Some of the joint activities in operation between January 1 and June 30, 1982, are summarized below:

- o Bonn Declaration on Hijacking. In July 1978, at an Economic Summit Conference held in Bonn, Germany, the President of the United States and

the Heads of State of six other participant nations issued a Declaration of their commitment to intensify joint efforts to combat terrorism, particularly aircraft piracy. The Declaration announced that where a country refuses extradition or prosecution of those who have hijacked an aircraft or if the country does not return the aircraft, the seven nations would initiate action to cease all flights to that country, to halt all incoming flights from that country, or from any country by airlines of the country concerned. Officials of the seven countries meet periodically and examine the cases of international aviation hijackings which fall within the framework of the declaration. Based upon the examinations to date, it has been considered necessary to initiate sanction action against one country for its failure to extradite or prosecute hijackers.

- o International Criminal Police Organization (INTERPOL). In April, a representative of the FAA attended a meeting of the INTERPOL Committee on Civil Aviation Security in Saint Cloud, France. This was the fourth meeting of the committee and was attended by representatives from six countries and four international organizations. The discussions at the meeting included the development of an international directory of airport police authorities, law enforcement agency responsibilities at airports, bomb attacks and other offenses involving the use of airport lockers, the carriage of flammable liquids and firearms aboard aircraft, the development of a liaison visit program, and pilot participation in the establishment or training of units involved in armed intervention on aircraft subjected to unlawful interference.
- o International Air Transport Association Seminar. In May, an FAA representative participated as a panel member in the International Air Transport Association Security Advisory Committee Seminar held in Montreal, Canada, with counterparts from the Governments of Canada and the United Kingdom. Participation in this conference served to facilitate a better understanding of the international complexities involved in civil aviation security matters and to encourage the spirit of mutual cooperation, particularly in the area of management of international aviation security incidents.
- o Technical Security Assistance on Explosive Detection Provided to Greece. In May, an FAA representative met with officials of the Greek Civil Aviation Authority in Athens, Greece, and presented a detailed briefing on the latest developments in the FAA's research and development program for detection of explosives in checked baggage. The Greek officials were also provided a copy of the FAA's passenger screening program training aid titled "Safety Through Screening."
- o International Association of Bomb Technicians and Investigators Conference. In June, an FAA representative participated in the 10th Annual International Association of Bomb Technicians and Investigator In-service Training Conference held in Bloomington, Minnesota. The agenda of the conference was devoted to presentations by U.S. and foreign experts covering the latest developments in the fields of terrorism, counterterrorism, and terrorist explosive devices. There

were over 250 participants from law enforcement organizations throughout the United States and 30 representatives from 12 foreign countries. These conferences have proven to be an excellent vehicle for the exchange of technical security data. They have also been of assistance in efforts to insure that the most up-to-date technical advice regarding terrorist methods and explosive devices is consistently available to the U.S. aviation industry.

- o Third International Civil Aviation Security Conference. The Third International Civil Aviation Security Conference will be held in Washington, D.C., on July 20-22, 1982. Representatives from a large number of countries covering most geographical regions of the world are expected to attend the conference. The agenda will focus on a wide variety of aviation security matters.
- o Foreign Technical Security Assistance. The FAA has continued to operate a bilateral technical assistance and exchange of information program. In this program FAA technical assistance security teams visit foreign nations to provide evaluations of security systems and to provide training in security procedures. During these trips, an assessment of technical security requirements also is conducted. During this reporting period, this type of technical assistance was provided to Spain and Portugal. Additional assistance is provided through briefings of foreign civil aviation officials on security matters, through aviation security training programs offered at the Transportation Safety Institute, and through the distribution of analytical studies and training aids relating to civil aviation security. The number of technical security surveys conducted in foreign countries has been reduced due to lack of funds and resources.

(See Exhibit 16.)

X. COMPLIANCE AND ENFORCEMENT

The FAA ensures compliance by airlines, airports, and individuals with the pertinent FARs. Alleged violations of regulatory requirements are investigated and, when substantiated, appropriate administrative or legal actions are taken. The principal objective of achieving compliance with the FARs is to assure safety and security for all air travelers. The success of efforts in this area is largely dependent upon the degree of cooperation between industry personnel and the persons responsible for enforcement of the regulations. As a general rule, airline and airport operators recognize potential problems and take corrective action on their own initiative, thus eliminating the need for enforcement action.

During the first half of 1982, 1,599 investigations of alleged security violations by air carriers, airports, and individuals were completed. A total of \$29,463 (U.S.) was collected as a result of civil penalties levied in 99 cases. In 1,374 cases administrative action was taken and in the remaining 126 cases the alleged violations were not substantiated. The total number of investigations completed during this one-half year reporting period is only a little less than one-half of the total number completed in 1981. This would indicate that little year-to-year change in overall compliance and enforcement actions should be anticipated.

(See Exhibit 17.)

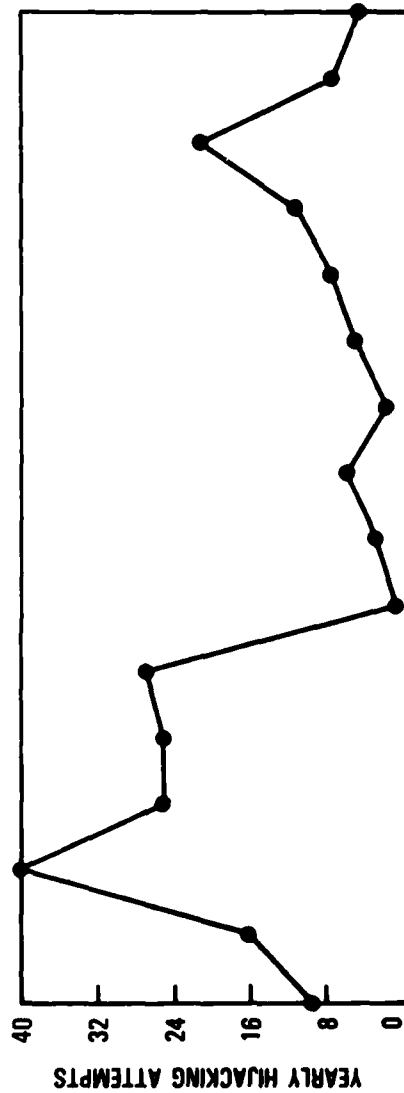
XI. OUTLOOK

With the recent growth of terrorist activities throughout the world, it is reasonable to expect that aircraft piracy and other criminal acts against civil aviation may increase proportionately as a means used by terrorists to accomplish their objectives or bring worldwide attention to their causes. The security measures in effect in the United States are believed to be sufficient to successfully cope with the threat as presently perceived, as well as defeat those attempts to disrupt the security of civil aviation made by demented, disgruntled, and criminal elements. If a significant change occurs in the overall threat, alternate measures are available for use as situations warrant.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Hijacking Attempts on U.S. Scheduled Air Carrier Aircraft ^{1/}



HIJACKING BY YEAR	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	TOTALS
TOTAL	9	16	40	25	25	27	1	3	6	2	5	8	11	21	7	5	211
SUCCESSFUL	4	12	33	17	11	8	0	0	0	1	0	0	4	13	1	2	106
INCOMPLETE ^{2/}	1	1	1	4	8	14	1	1	1	0	3	4	5	3	0	0	47
UNSUCCESSFUL	4	3	6	4	6	5	0	2	5	1	2	4	2	5	6	3	58

^{1/}Effective September 1981—Includes all certificate holders as defined in Code of Federal Regulations Title 14 Part 108.

^{2/}Hijacking in which hijacker is apprehended/killed during hijacking or a result of "hot pursuit".

U.S. Aircarrier Hijacking Attempts Since Jan. 1, 1982

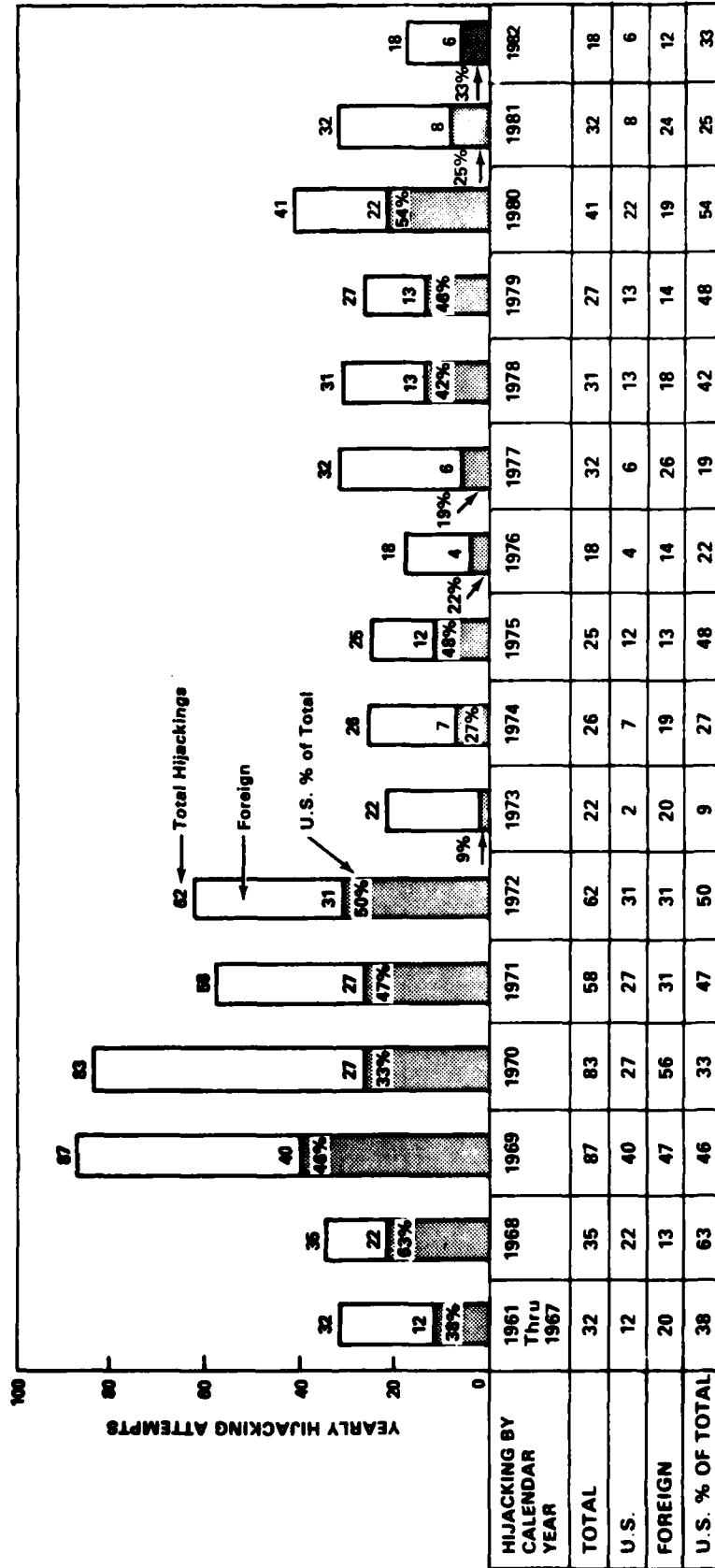
Date 1982	Airline-Fit/ Aircraft	Number Aboard	Hijacker's Boarding Point	Hijacker's Destination/ Objective	Date 1982	Airline-Fit/ Aircraft	Number Aboard	Hijacker's Boarding Point	Hijacker's Destination/ Objective
2/2	QH-710/B-737	77	Miami, FL	Cuba	4/5	DL-591/B-727	103	Chicago, IL	Cuba
2/13	BN-None/B-727	2	Amarillo, TX	Flight Out of Area	6/23	AL-611/DHC-7	4	Staunton, VA	Flight Out of Area
3/1	UA-674/B-727	97	Chicago, IL	Cuba					

As Of: 7/1/82



U.S. Department
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Hijacking Attempts on U.S. And Foreign Aircraft*



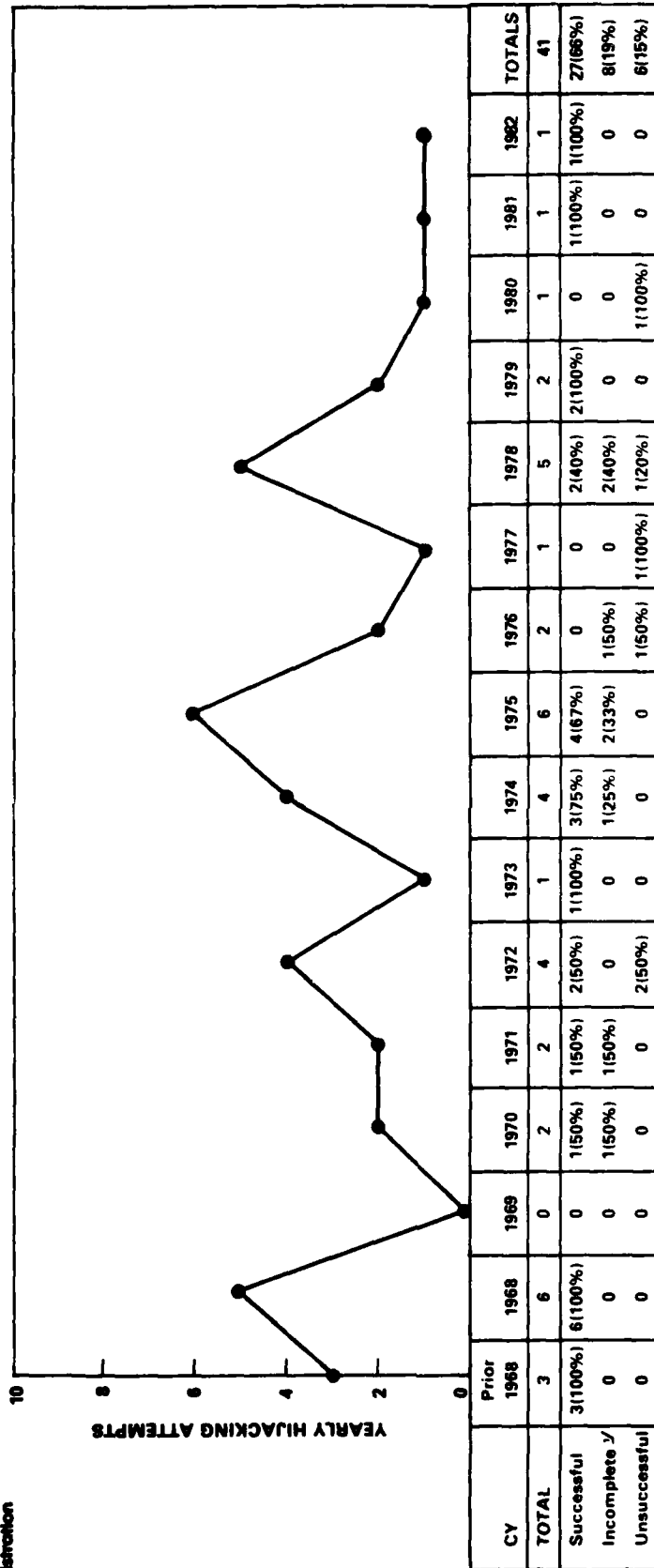
*Includes General Aviation

As of: 7/1/82



U.S. Department
of Transportation
Federal Aviation
Administration

Hijacking Attempts on U.S. General Aviation Aircraft



✓Hijacking in which hijacker is apprehended/killed during hijacking or as a result of "hot pursuit."

General Aviation Aircraft Hijacking Attempts Since Jan. 1, 1982

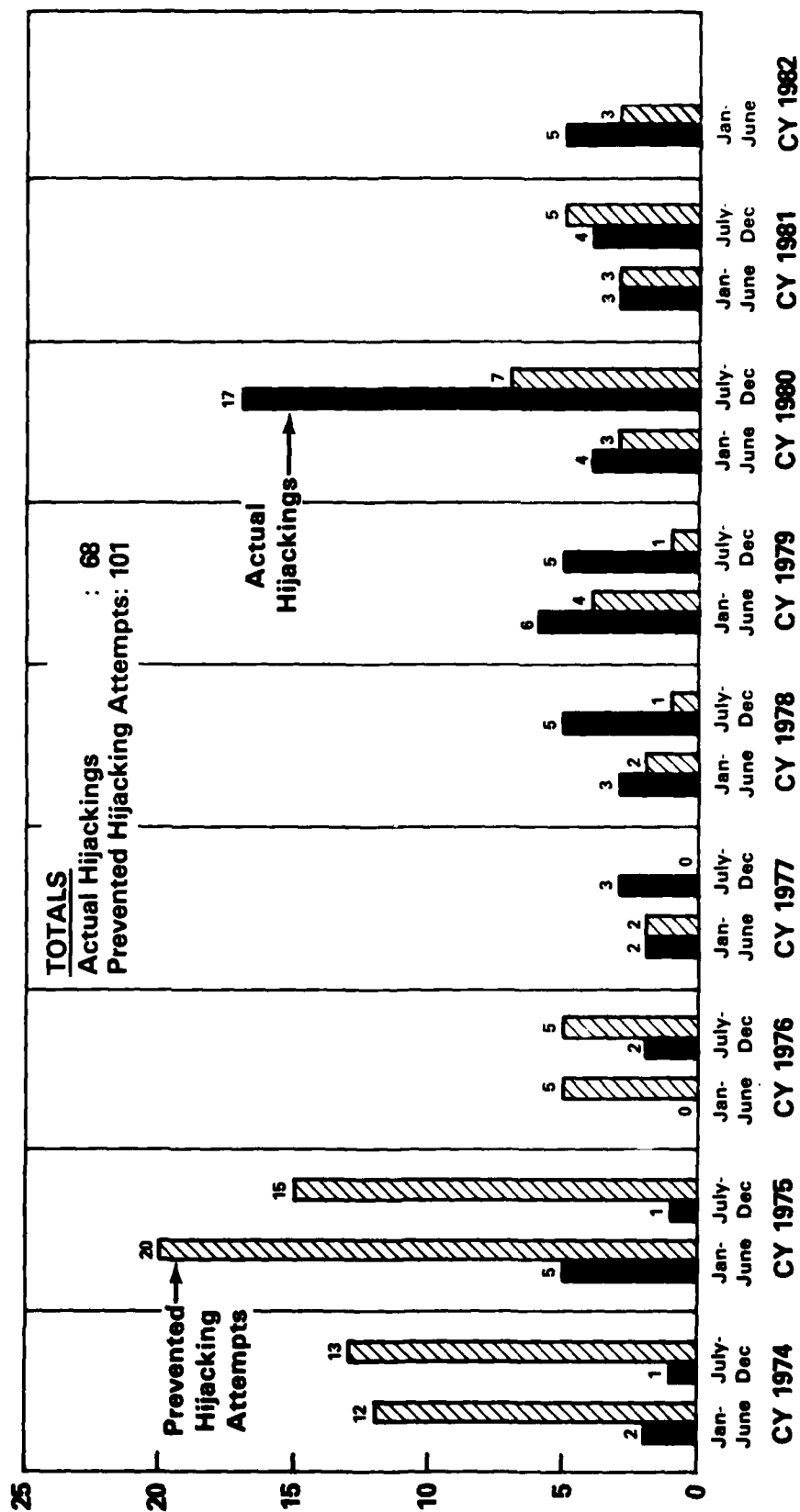
Date	Aircraft	Number Aboard	Hijacker's Boarding Point	Hijacker's Destination/Objective
1/8	Piper PA-28	3	Shelbyville, TN.	Steal and Fly Aircraft

As of: 7/1/82



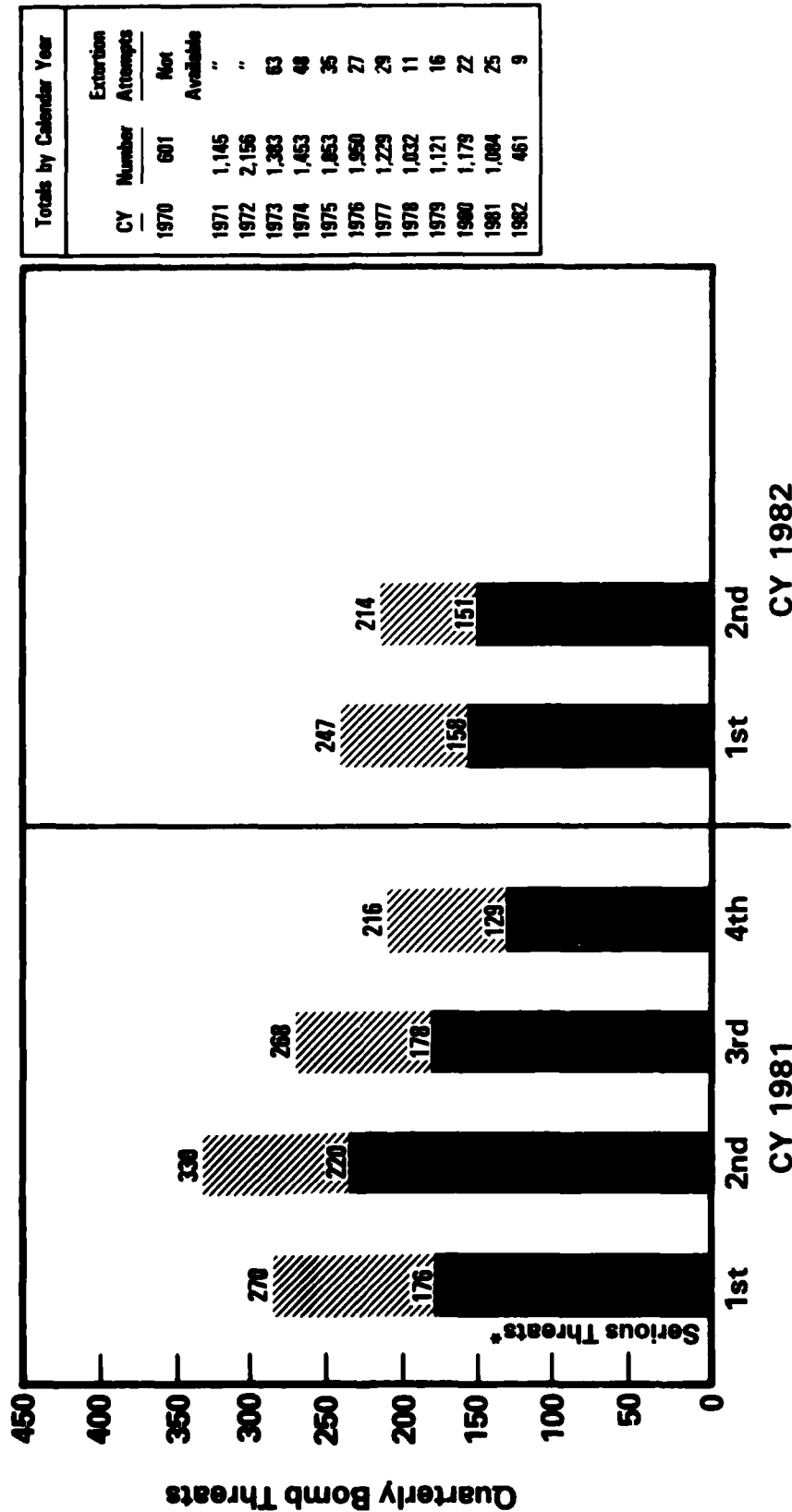
Federal Aviation
Administration

Actual Hijacking & Prevented Hijacking Attempts (U.S. Air Carrier Aircraft)



PREVENTED ATTEMPTS: Incidents in which it appeared the individuals involved intended to hijack an aircraft but were prevented from doing so by security procedures.

Bomb Threats Against U.S. Aircraft and Foreign Aircraft in the U.S.



*A statement is considered a serious threat if one of the following occurs:

1. It is directed against a particular aircraft or flight.
2. It is not possible to immediately determine if it is made in a joking manner.
3. It results in inconvenience to other passengers.
4. It results in a search or otherwise disrupts airline operations.

As of: 7/1/82



U.S. Department
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Federal Aviation
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Bomb Threats Against U.S. Airports

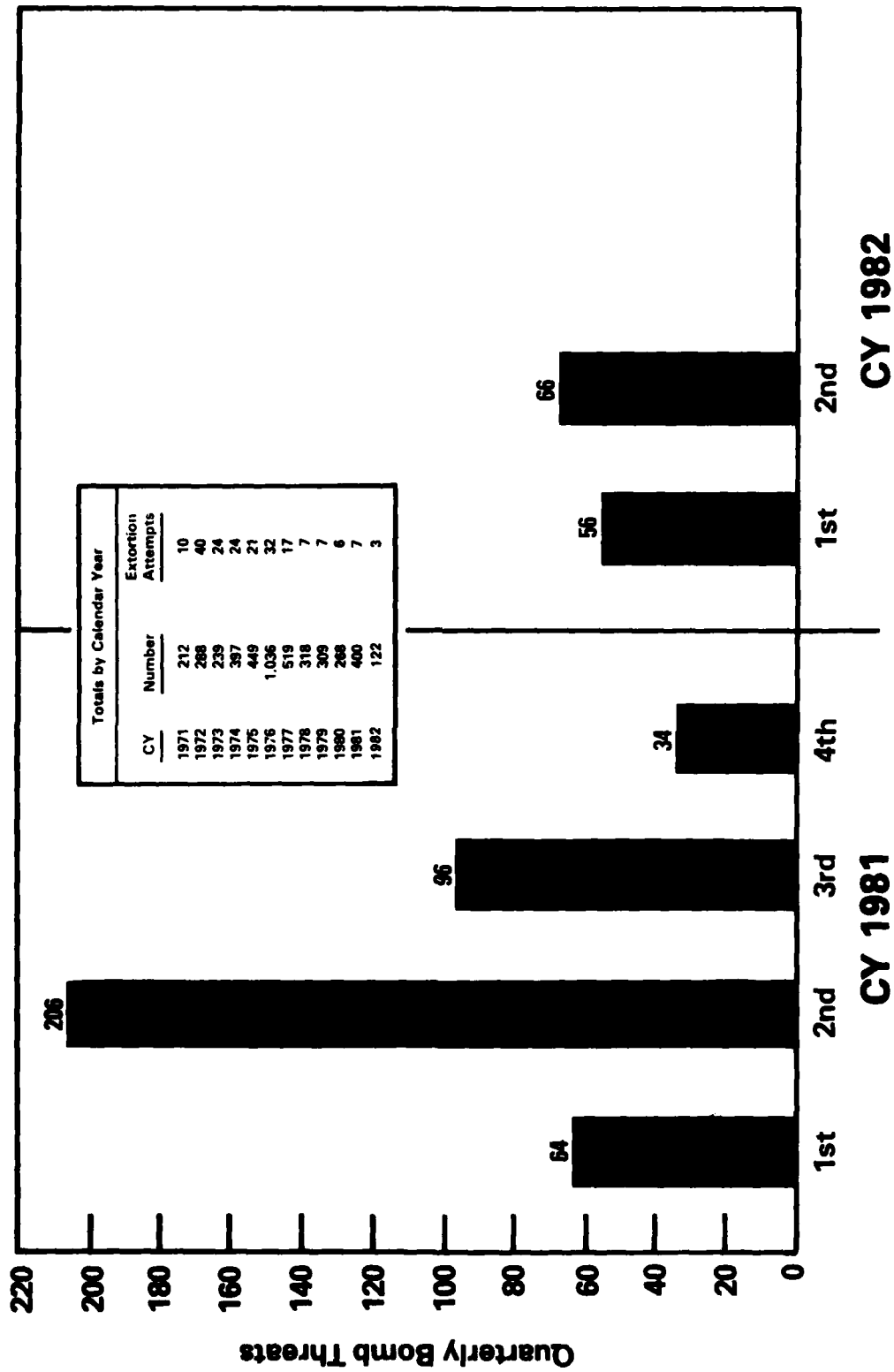


EXHIBIT 6

As of: 7/1/82



U.S. Department
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Civil Aviation Security The Threat To U.S. Aviation

	1961-7	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<u>Hijackings*</u>	12	22	40	27	27	31	2	7	12	4	6	13	13	22	8	6
<u>Explosions:</u>																
Aircraft	2	1	1	2	1	1	2	3	2	2	1	0	1	1	0	0
Airports						2	2	4	4	2	3	3	2	1	2	1
<u>Explosive Devices Found:</u>																
Aircraft					1	2	2	1	1	1	2	0	2	1	1	1
Airports					5	5	3	11	5	3	1	6	6	4	6	3
<u>Bomb Threats To:</u>																
Aircraft			400	601	1145	2156	1383	1453	1853	1950	1229	1032	1121	1179	1084	461
Airports					212	288	239	387	449	1036	519	318	309	268	400	122

*Includes Air Carrier and General Aviation Hijackings

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U.S. Department
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Worldwide Criminal Incidents Involving Civil Aviation

Year	Deaths	Injuries	Total Incidents	Hijackings (Scheduled Air Carriers)	
				Foreign	U.S.A.
1968 *	2	2	30	13	17
1969 *	35	7	92	47	40
1970	92	32	82	56	25
1971	31	9	73	31	25
1972	159	96	88	31	27
1973	104	75	73	20	1
1974	170	59	62	19	3
1975	24	162	63	13	6
1976	227	200	55	13	2
1977	129	68	69	25	5
1978	81	147	71	17	8
1979	62	80	85	12	11
1980	4	75	100	17	21
1981	14	62	89	22	7
1982	4	15	42	12	5

* Statistical data prior to 1970 are approximations.

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U.S. Department
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Civil Aviation Security

Airline Passenger Screening Results

January 1978 - June 1982

	1978		1979		1980		1981		1982	
	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec
Persons Screened (Millions)	275.2	304.5	285.7	306.8	289.9	295.1	294.4	304.1	319.5	
Weapons Detected										
Firearms	962	1096	990	1171	1002	1020	971	1284	1286	
(1) Handguns	836	991	902	1060	940	938	915	1209	1243	
(2) Long Guns	34	33	29	26	17	19	7	37	16	
(3) Other	92	72	59	85	45	63	49	38	27	
Explosive/Incendiary Devices	1	2	3	0	1	7	8	3	0	
Persons Arrested										
For Carriage of Firearms/ Explosives	404	492	469	591	520	511	534	653	651	
For Giving False Information	31	33	21	26	11	21	34	15	21	
Other Offenses Detected										
Narcotics	151	99	73	128	75	101	89	130	196	
Illegal Aliens	723	805	845	844	938	662	843	578	707	
Other	706	69	40	109	107	67	36	62	33	

Source: Reports of Passenger Screening Activities at U.S. Airports

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Civil Aviation Security Weapon Detection Devices

<u>Type</u>	<u>Basic Characteristics</u>	<u>Manufacturer</u>	<u>Units</u>
Walk-Thru	Creates and Measures	Federal Laboratories	3
Active	Deviations in Own	Infinetics	294
	Electric Field. Detects	Metor	16
	Both Ferrous and Non-	Philips	35
	Ferrous Metals.	Rens	261
		Scanray	3
		Sentrie	329
		Solco	3
		Westinghouse	2
		Total	946

EXHIBIT 10

As of: 7/1/82



US Department
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Civil Aviation Security X-Ray Baggage Inspection Systems

Characteristics:

Small Dose X-Ray, Intensify Image Electron-
ically, Display on TV

Operating Criteria:

Meet FDA/BRH and State Health Standards
Distinguish 24 Gauge Wire

Limitations:

Dependent on Diligence of Operators,
Demands Constant Attention and Ability to
Quickly Recognize Dangerous Articles

Systems In Use:

Astrophysics	444
Philips Electronic Instruments	126
Bendix	108
American Science & Engineering	60
New Security Concepts	30
Dennis & Miller	20
Picker	7
Total:	<hr/> 795



U.S. Department
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Civil Aviation Security Basic Policies

<u>PROGRAM ELEMENT</u>	<u>RESPONSIBILITY</u>	<u>ACTIONS</u>
AIR CARRIERS	SECURE TRAVEL	<ul style="list-style-type: none">• MAINTAIN RESPONSIVE SECURITY PROGRAMS• SCREEN PASSENGERS, CARRY-ON ITEMS• SECURE BAGGAGE, CARGO PROCEDURES• PROTECT AIRCRAFT
AIRPORTS	SECURE OPERATING ENVIRONMENT	<ul style="list-style-type: none">• MAINTAIN RESPONSIVE SECURITY PROGRAMS• PROTECT AIR OPERATIONS AREA• PROVIDE LAW ENFORCEMENT SUPPORT
FAA	LEADERSHIP	<ul style="list-style-type: none">• IDENTIFY AND ANALYZE THREAT• PRESCRIBE SECURITY REQUIREMENTS• COORDINATE SECURITY OPERATIONS• PROVIDE TECHNICAL ASSISTANCE• ENFORCE REGULATIONS
USERS	PROGRAM COSTS	<ul style="list-style-type: none">• SECURITY FUNDED AS OPERATING COST OF SYSTEM



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Civil Aviation Security Regulatory Impact

	<u>U.S.</u>	<u>FOREIGN^{1/}</u>	<u>TOTAL</u>
Carriers	90 ^{2/}	93	183
Airports	365	265	630
Aircraft	2,300	1,100	3,400
Flights Per Day	14,000	600	14,600
Screening Activity Per Day:			
Persons	1,765,000	110,000	1,875,000
Carry-On Items	1,757,000	100,000	1,857,000

^{1/}Estimated—accurate source documents not available

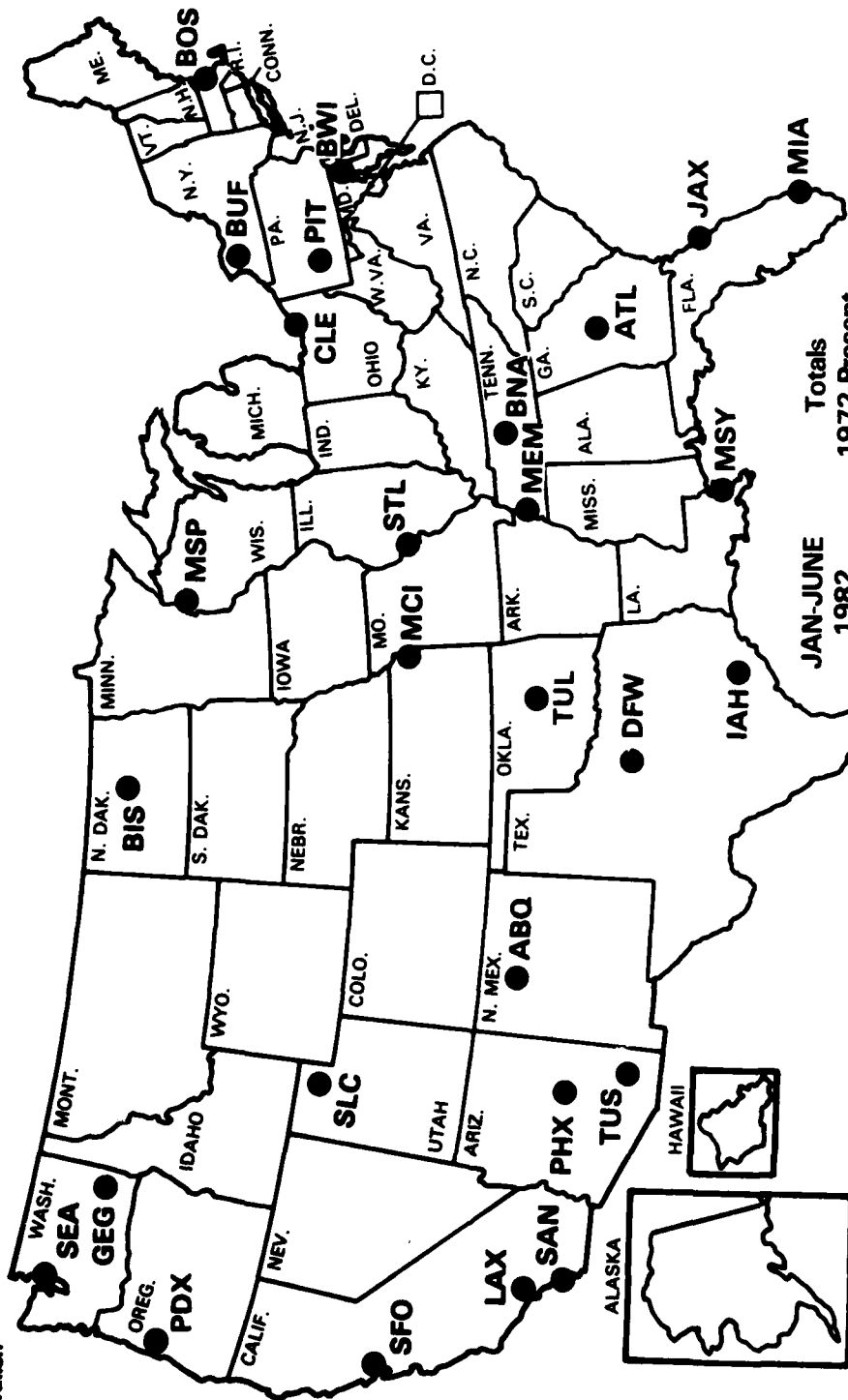
^{2/}Effective September 1981—includes all certificate holders as defined in Code of Federal Regulations Title 14, Part 108.

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U.S. Department
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FAA Sponsored Explosive Detection K9 Teams Locations and Utilization



Aircraft & Airport Searches
Explosive Items Detected
Missions in Local Communities
Explosive Items Detected
Total Explosive Items Detected

JAN-JUNE
1982

Totals
1972-Present

SJU●

As of: 7/1/82



Civil Aviation Security Research and Development Explosive Detection

X-Ray Absorption

- One Unit Sent to FAA Technical Center for Testing to Gather Additional Airport Data
- One Unit Operational Evaluation Completed June 1981 — Over 65,000 Baggage Articles Processed
- Operational Evaluation of Advanced Adaptive Threshold Algorithm Expected August-October 1982

Thermal Neutron Activation

- Prototype Evaluated at Two Airports
- Evaluation of System for Air Cargo Completed
- Data Analyzed Appears Promising for Air Cargo
- Research to Continue to Enhance Detection Capability

Nuclear Magnetic Resonance

- Test at Dallas-Fort Worth International Airport Proved Successful
- Prototype Unit Being Modified
- Operational Evaluation Expected Late 1982

Walk by Explosive Detector

- Laboratory Evaluation Completed
- Preparing Specifications for Explosive Vapor Detector

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Civil Aviation Security Foreign Technical Assistance

<u>Actions</u>	<u>Countries Participating</u>
● FAA Technical Assistance Team Visits	30
● Aviation/Law Enforcement Officials Briefings	71
● Training Programs:	
— Aviation Security Course (Students)	80 (352)
— Antihijacking Tactics	58
— Ground Explosive Security	71
— Inflight Explosive Security	95
— Passenger Screening	35
— In-Flight Safety (Halon)	4
● Analytical Studies Distribution	21

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U.S. Department
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**Federal Aviation
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Civil Aviation Security Compliance and Enforcement Actions

	1973 through 1976	1977	1978	1979	1980	1981	1982
U.S. AIR CARRIERS							
Warnings	599	276	266	283	154	465	81
Letters of Correction	514	109	145	102	100	52	49
Non Enforcement Actions	273	61	65	49	55	38	26
Civil Penalties (Amount)	241 (\$210,700)	43 (\$66,700)	30 (\$23,300)	26 (\$18,075)	48 (\$42,875)	35 (\$72,547)	19 (\$7,308)
Investigations Closed	1,627	489	506	460	357	590	175
Investigations Pending		61	48	80	112	115	95
FOREIGN AIR CARRIERS							
Warnings	0	0	0	14	4	3	0
Letters of Correction	12	11	11	6	4	0	0
Non Enforcement Actions	5	2	3	3	15	1	1
Civil Penalties (Amount)	0	0	0	0	0	2 (\$25,000)	0
Investigations Closed	17	13	14	23	23	6	1
Investigations Pending		2	12	15	5	2	2
AIRPORTS							
Warnings Issued	266	137	168	80	83	63	33
Letters of Correction	259	53	65	53	91	14	10
Non Enforcement Actions	50	23	20	12	23	19	5
Civil Penalties (Amount)	50 (\$32,600)	12 (\$3,500)	11 (\$7,500)	19 (\$15,150)	13 (\$15,600)	23 (\$21,675)	6 (\$3,800)
Investigations Closed	625	225	264	164	210	119	54
Investigations Pending		23	29	69	48	25	21
INDIVIDUALS							
Administrative Corrections	28	81	68	617	1,469	2,168	1,201
Non Enforcement Actions	43	24	18	87	162	209	94
Civil Penalties (Amount)	2 (\$375)	4 (\$2,050)	9 (\$1,925)	70 (\$11,300)	155 (\$27,210)	231 (\$49,410)	74 (\$18,355)
Investigations Closed	73	109	95	774	1,786	2,608	1,369
Investigations Pending		14	45	392	475	398	418

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